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.NET PROGRAMMING

LAB-9

IN-LAB

At the Low level, you need to solve the following five tasks:

TASK 1: The character C and a sequence of non-empty strings stringList are given. Get a new sequence of strings with more than one character from the stringList, starting and ending with C.

TASK 2: A sequence of non-empty strings stringList is given. Get a sequence of ascending sorted integer values equal to the lengths of the strings included in the stringList sequence.

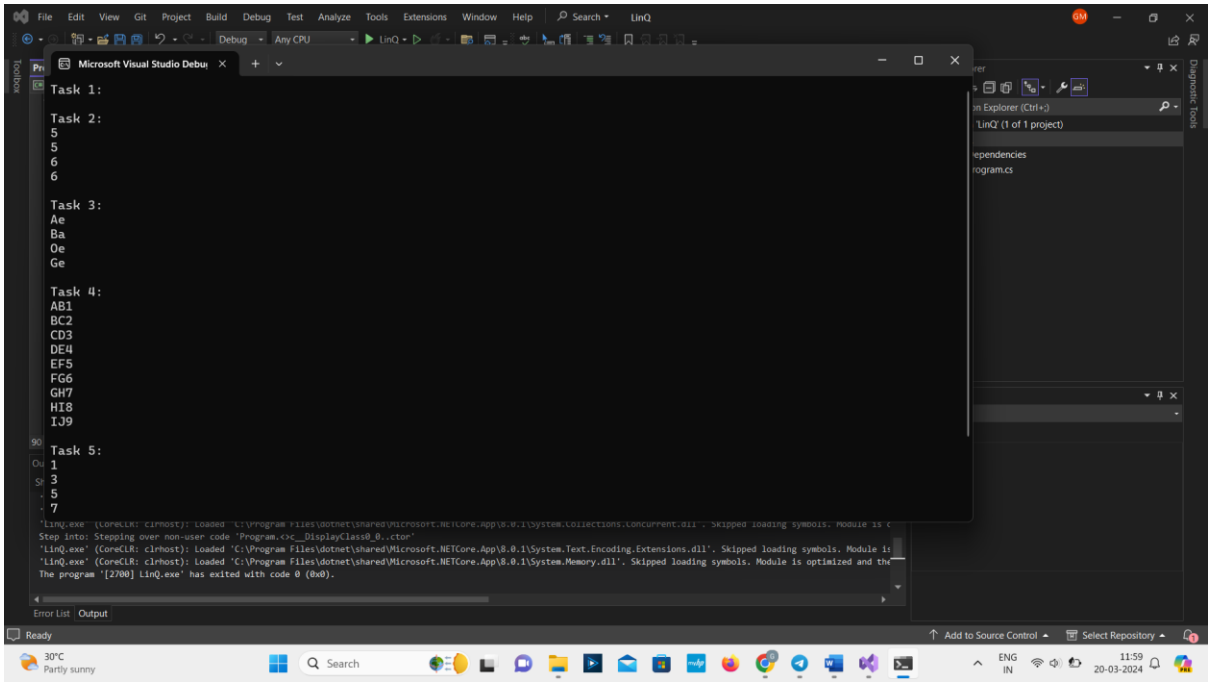
TASK 3: A sequence of non-empty strings stringList is given. Get a new sequence of strings, where each string consists of the first and last characters of the corresponding string in the stringList sequence.

TASK 4: A positive integer K and a sequence of non-empty strings stringList are given. Strings of the sequence contain only numbers and capital letters of the Latin alphabet. Get from stringList all strings of length K ending in a digit and sort them in ascending order.

TASK 5: A sequence of positive integer values integerList is given. Get sequence of string representations of only odd integerList values and sort in ascending order.

```
using System;
using System.Collections.Generic;
using System.Linq;
public class Program
{
    public static void Main(string[] args)
    {
        // Task 1
        char c = 'C';
        List<string> stringList1 = new List<string> { "Cats", "Dog", "Cake",
"Candy", "Apple" };
        List<string> result1 = stringList1.Where(s => s.StartsWith(c) &&
s.EndsWith(c) && s.Length > 2).ToList();
        Console.WriteLine("Task 1:");
        foreach (var item in result1)
        {
            Console.WriteLine(item);
        }
        Console.WriteLine();
        // Task 2
        List<string> stringList2 = new List<string> { "Apple", "Banana",
"Orange", "Grape" };
        List<int> result2 = stringList2.Select(s => s.Length).OrderBy(x =>
x).ToList();
```

```
        Console.WriteLine("Task 2:");
        foreach (var item in result2)
        {
            Console.WriteLine(item);
        }
        Console.WriteLine();
        // Task 3
        List<string> stringList3 = new List<string> { "Apple", "Banana",
"Orange", "Grape" };
        List<string> result3 = stringList3.Select(s => s[0].ToString() +
s[^1]).ToList();
        Console.WriteLine("Task 3:");
        foreach (var item in result3)
        {
            Console.WriteLine(item);
        }
        Console.WriteLine();
        // Task 4
        int K = 3;
        List<string> stringList4 = new List<string> { "AB1", "BC2", "CD3", "DE4",
"EF5", "FG6", "GH7", "HI8", "IJ9" };
        List<string> result4 = stringList4.Where(s => s.Length == K &&
char.IsDigit(s[^1])).OrderBy(s => s).ToList();
        Console.WriteLine("Task 4:");
        foreach (var item in result4)
        {
            Console.WriteLine(item);
        }
        Console.WriteLine();
        // Task 5
        List<int> integerList = new List<int> { 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 };
        List<string> result5 = integerList.Where(x => x % 2 != 0).Select(x =>
x.ToString()).OrderBy(x => x).ToList();
        Console.WriteLine("Task 5:");
        foreach (var item in result5)
        {
            Console.WriteLine(item);
        }
    }
}
```


Microsoft Visual Studio Debu
Task 1:
Task 2:
5
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Task 3:
Ae
Ba
Oe
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Task 4:
AB1
BC2
CD3
DE4
EF5
FG6
GH7
HI8
IJ9
Task 5:
1
3
5
7
Step into: Stepping over non-user code 'Program.<>c__DisplayClass0_0..ctor'
'LinQ.exe' (CoreCLR: clrhost): Loaded 'C:\Program Files\dotnet\shared\Microsoft.NETCore.App\8.0.1\System.Text.Encoding.Extensions.dll'. Skipped loading symbols. Module is
'LinQ.exe' (CoreCLR: clrhost): Loaded 'C:\Program Files\dotnet\shared\Microsoft.NETCore.App\8.0.1\System.Memory.dll'. Skipped loading symbols. Module is optimized and the
The program '[2700] LinQ.exe' has exited with code 0 (0x0).
Error List
Output
Ready
Add to Source Control
Select Repository
30°C
Partly sunny
Search
ENG
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11:59
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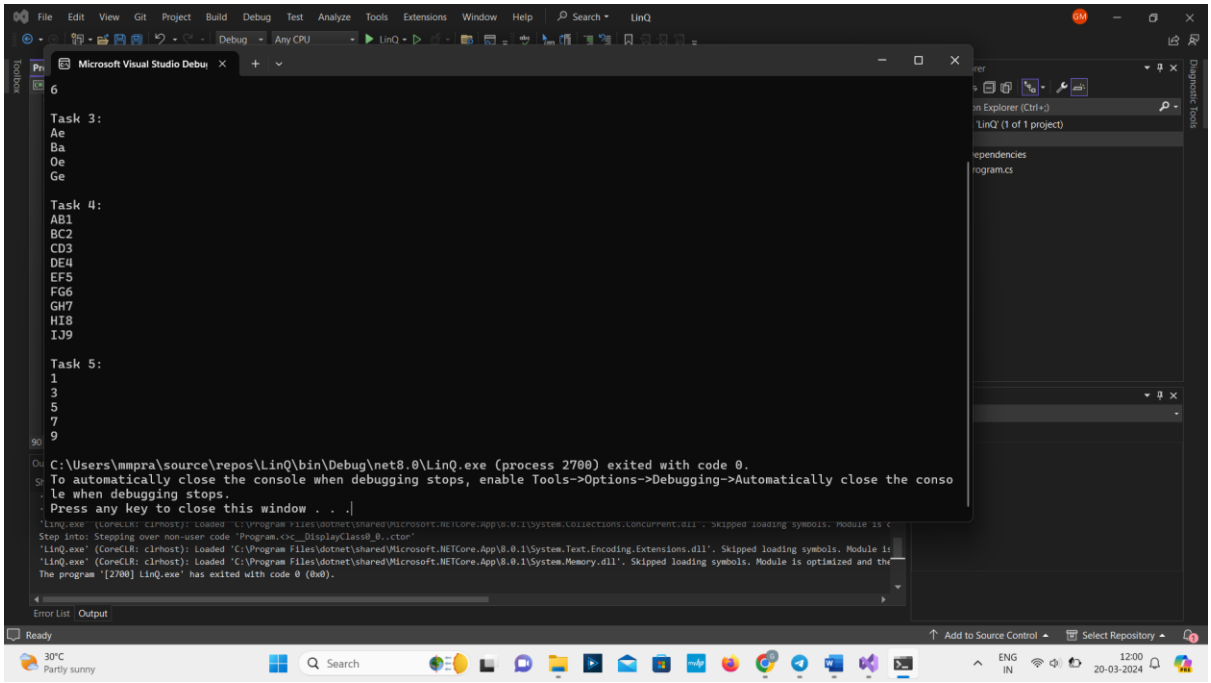
Microsoft Visual Studio Debu
6
Task 3:
Ae
Ba
Oe
Ge
Task 4:
AB1
BC2
CD3
DE4
EF5
FG6
GH7
HI8
IJ9
Task 5:
1
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C:\Users\mmpra\source\repos\LinQ\bin\Debug\net8.0\LinQ.exe (process 2700) exited with code 0.
To automatically close the console when debugging stops, enable Tools->Options->Debugging->Automatically close the conso
le when debugging stops.
Press any key to close this window . . .
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